

CLAIMS

I claim:

1. A device for storage of an opened wine container comprising a housing for receiving said opened wine container in a substantially vertical orientation, a poppet valve assembly including a valve body for insertion within an opening in said opened wine container and biased to enable said device to accommodate opened wine containers of varying sizes, a pressurized source of heavier-than-air inert gas located within said housing, a regulator for reducing the pressure of said inert gas from a first pressure at said pressurized source of heavier-than-air inert gas to a second pressure at said poppet valve assembly, said poppet valve assembly further comprising a spring-loaded check ball, low-pass port, shuttle and orifice to control pressure and flow path of said heavier-than-air inert gas as it enters said opened wine container and to direct said heavier-than-air inert gas to said opened wine container and for displacing any air that may have been present therein through an exhaust port further made part of said poppet valve assembly.
2. The device of claim 1 wherein during storage of said wine container, said valve body remains in contact with said wine container as said shuttle vertically rises within said poppet valve assembly to exhaust air contained within wine container as said heavier-than-air inert gas than-air inert gas is introduced therein.
3. The device of claim 2 wherein said valve body is perforated to facilitate the passage of air therethrough.
4. The device of claim 1 wherein said opened wine container comprises an opened wine bottle containing liquid wine and an air space there above.

5. The device of claim 1 further comprising an activation lever accessible from outside of said housing for selectively receiving said heavier-than-air inert gas from its pressurized source for delivery to said poppet valve assembly.
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6. The device of claim 1 wherein said pressurized source of heavier-than-air inert gas comprises a gas cartridge replaceable within said housing.
7. The device of claim 1 wherein said heavier-than-air inert gas comprises argon.
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8. The device of claim 1 wherein said housing further includes a transparent window for viewing said opened wine container there through.
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9. The device of claim 6 wherein said gas cartridge is attached to said gas pressure regulator by a threaded safety barrel.
10. The device of claim 1 wherein said poppet valve assembly is mounted on guide pins provided for vertical movement of said poppet valve assembly thereon.
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11. The device of claim 10 further comprising springs mounted axially about said guide pins to bias said poppet valve assembly in the direction of said opened wine container.
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12. The device of claim 1 wherein said gas pressure regulator comprises a counter-balanced spring, plenum and flow control needle.
13. The device of claim 1 wherein a flexible conduit is provided between said regulator and poppet valve assembly for carrying said heavier-than-air inert gas at a pressure of approximately 15-to-20psi.
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14. The device of claim 1 further comprising a vertical stop limiting vertical movement of said shuttle as said heavier-than-air inert gas is introduced within said poppet valve assembly.

5 15. The device of claim 1 further comprising poppet exhaust ports for facilitating the exhaust of air from within said opened wine container as said heavier-than-air inert gas is introduced therein.

10 16. The device of claim 15 wherein said housing is provided with an exhaust vent port for venting air received from said poppet exhaust ports.

15 17. The device of claim 15 wherein said shuttle is spring biased such that as the heavier-than-air inert gas flow is interrupted and gas pressure is consequently eliminated from said poppet valve assembly, said shuttle is forced against said opening in said opened wine container.

20 18. The device of claim 17 wherein said shuttle is provided with a gasket for substantially selectively sealing said opening in said opened wine container.

19. The device of claim 18 wherein said checkball substantially prevents backflow of either air or heavier-than-air inert gas.

25 20. The device of claim 1 wherein said device further comprises cooling means for controllably heating or cooling said opened wine container.

21. The device of claim 20 wherein said cooling means comprises a thermoelectric cooler.

30 22. A device for storage of an opened food container comprising a housing for receiving said opened food container in a substantially vertical orientation, a poppet valve assembly for insertion within an opening in said opened food container and biased to enable said device to

accommodate opened food containers of varying sizes, a pressurized source of heavier-than-air inert gas located within said housing, a regulator for reducing the pressure of said inert gas from a first pressure at said pressurized source of heavier-than-air inert gas to a second pressure at said poppet valve assembly, said poppet valve assembly further comprising a spring-loaded check ball, low-pass port, shuttle and orifice to control pressure and flow path of said heavier-than-air inert gas as it enters said opened food container and to direct said heavier-than-air inert gas to said opened food container and for displacing any air that may have been present therein through and exhaust port further made part of said poppet valve assembly.

23. The device of claim 22 wherein said opened food container contains coffee.